

CLEAN VERSION OF THE SPECIFICATION

ABSTRACT OF THE DISCLOSURE

A digital online active test - plant protection system in a nuclear power plant comprises a test generating computer for generating a test input being inserted between actual safety parameters as a test parameter and a test signal position bit indicating position

5 information of the test input; a trip algorithm computer for receiving safety parameters from a plurality of measuring channels and then comparing the safety parameters and predetermined limit values by the safety parameters to determine a trip state, if there is a test input; a voting algorithm computer for receiving a trip state of each of the safety parameters, determining a final state of the safety parameters and then outputting the result;

10 and a pattern recognition computer for expecting a signal pattern , comparing the signal pattern with the result determined, and then if the signal pattern and the result are not consistent, determining to trip the reactor.